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(54) Title: **LIVE VACCINE STRAIN**

(57) Abstract: A strain of *Francisella* species wherein a gene which encodes an enzyme in the purine pathway has been inactivated, and which is able to produce a protective immune response in an animal, for use as a live prophylactic or therapeutic vaccine against infection by said *Francisella* species. Suitable genes for inactivation include the purF gene. Pharmaceutical compositions and methods which utilise these strains are also described and claimed.



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